

Title Salicylic acid alleviates chilling injury in anthurium (*Anthurium andraeanum* L.) flowers
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Abstract

We tested if salicylic acid (SA) can alleviate chilling injury in anthurium flowers (*Anthurium andraeanum*). Cut flowers of five cultivars, individually placed in water, were held at 4 °C and 12 °C. Symptoms of chilling injury (CI) were found in the flowers stored at 4 °C. These symptoms included desiccation of the spadix (the compound floral stalk) and a colour change of the spathe (the large floral bract) to pink and then to brown. The time to the CI symptoms depended on the cultivar. CI symptoms were accompanied by an increase in electrolyte leakage, by loss of fresh weight, and by an increase in catalase (CAT) and superoxide dismutase (SOD) activity. SA at 2.0 mM in water was applied as a 15 min dip. It delayed the CI symptoms, as well as the loss of fresh weight, the increase in electrolyte leakage, and the increase CAT and SOD activity. The data suggest that CI in this system is related to an increase in the concentrations of active oxygen species.